



Attorney Docket No. 5000.236  
Confirmation No. 6381

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re: Jenny et al.  
Serial No.: 10/064,232  
Filed: June 24, 2002  
For: METHOD FOR PRODUCING SEMI-  
INSULATING RESISTIVITY IN SILICON  
**CARBIDE CRYSTALS**  
Commissioner for Patents  
Alexandria, VA 22313-1450

Group Art Unit: 1765  
Examiner: Matthew Anderson

**Statement by Inventor**

Sir:

Statement of Dr. Valeri F. Tsvetkov

1. My name is Valeri Tsvetkov and I reside at 4535 Malvern Road, Durham, North Carolina 27707.

2. I am employed as a scientist at Cree, Inc. in Durham, North Carolina where my areas of concentration comprise doping techniques for silicon carbide, including implantation, diffusion and annealing, and the silicon carbide semiconductor devices that are designed and produced using such techniques.

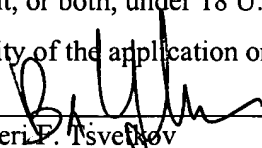
3. I am a named co-author on a number of scientific publications.

4. I am a named inventor on at least six issued U.S. patents and several pending applications, and I am generally familiar with the patent process, including inventorship.

5. Named inventors Jason Jenny, David Malta, Hudson McDonald, <sup>U.S. 6,600,000</sup> and Stéphan Mueller are co-workers of mine at Cree, Inc.

6. My omission from the originally-named inventorship in this application was an oversight and was made without deceptive intent on my part.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

  
\_\_\_\_\_  
Valeri F. Tsvetkov

Date: March 26, 2004

Please type a plus sign (+) inside this box →



PTO/SB/01 (10-00)

Approved for use through 10/31/2002. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**DECLARATION FOR UTILITY OR  
DESIGN  
PATENT APPLICATION  
(37 CFR 1.63)**

☐ Declaration  
Submitted With Initial  
Filing      **OR**      ☒ Declaration  
Submitted after Initial  
Filing (surcharge  
(37 CFR 1.16 (e))  
required)

Attorney Docket Number      5000.236

First Named Inventor      Jenny, et al.

**COMPLETE IF KNOWN**

Application Number      10/064,232

Filing Date      June 24, 2002

Group Art Unit      1765

Examiner Name      Matthew A. Anderson

**As a below named inventor, I hereby declare that:**

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**METHOD FOR PRODUCING SEMI-INSULATING RESISTIVITY IN HIGH PURITY  
SILICON CARBIDE CRYSTALS**

the specification of which      (Title of the Invention)

☐ is attached hereto

OR

☒ was filed on (MM/DD/YYYY)      06/04/2002      as United States Application Number or PCT International

Application Number      10/064,232      and was amended on (MM/DD/YYYY)      (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims as amended specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY) Country	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

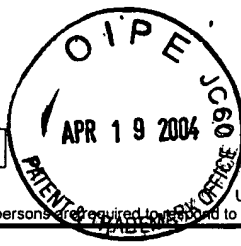
Application Number(s)	Filing Date (MM/DD/YYYY)	<input type="checkbox"/> Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]

Burden Hour Statement: This form is estimated to take 21 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

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PTO/SB/01 (10-00)

Approved for use through 10/31/2002. OMB 0651-0032

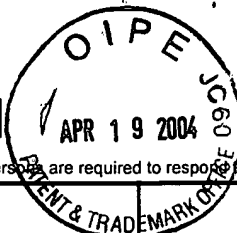
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## DECLARATION — Utility or Design Patent Application

Direct all correspondence to:		<input checked="" type="checkbox"/> Customer Number or Bar Code Label	021176	OR	<input type="checkbox"/> Correspondance address below
Name					
Address					
Address					
City		State		ZIP	
Country		Telephone		Fax	
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.					
NAME OF SOLE OR FIRST INVENTOR:		<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name Jason Ronald		Family Name or Surname Jenny			
Inventor's Signature 		Date 3/30/04			
Residence: City Raleigh		State North Carolina		Country USA	
Mailing Address 11909 Larka Court					
Mailing Address					
City Raleigh		State North Carolina		ZIP 27613	
Country USA					
NAME OF SECOND INVENTOR:		<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name David Phillip		Family Name or Surname Malta			
Inventor's Signature 		Date 4-1-04			
Residence: City Raleigh		State NC		Country USA	
Citizenship USA					
Mailing Address 1008 Sheetbend Lane					
Mailing Address					
City Raleigh		State North Carolina		ZIP 27606	
Country USA					
<input checked="" type="checkbox"/> Additional inventors are being named on the 1 supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.					

Please type a plus sign (+) inside this box →



PTO/SB/02A (11-00)

Approved for use through 10/31/2002. OMB 0651-0032

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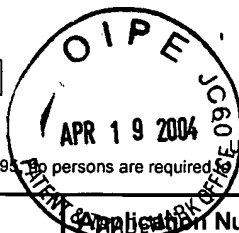
<b>DECLARATION</b>	<b>ADDITIONAL INVENTOR(S)</b> Supplemental Sheet Page <u>3</u> of <u>3</u>
--------------------	--

Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Hudson McDonald		Hobgood	
Inventor's Signature <i>[Signature]</i>		Date <i>4-1-04</i>	
Residence: City	Pittsboro	State	North Carolina
		Country	USA
Mailing Address 501 Fearington			
Mailing Address			
City	Pittsboro	State	North Carolina
		ZIP	27312
		Country	USA
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Stephan		Mueller	
Inventor's Signature <i>[Signature]</i>		Date <i>April 14, 2004</i>	
Residence: City	Durham	State	North Carolina
		Country	USA
Mailing Address 100-123 Laurel Springs Drive			
Mailing Address			
City	Durham	State	North Carolina
		Zip	27713
		Country	USA
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Valeri F.		Tsvetkov	
Inventor's Signature <i>[Signature]</i>		Date <i>March 26, 2004</i>	
Residence: City	Durham	State	NC
		Country	USA
Mailing Address 4535 Malvern Road			
Mailing Address			
City	Durham	State	NC
		Zip	27707
		Country	USA

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PTO/SB/81 (10-00)

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## POWER OF ATTORNEY OR AUTHORIZATION OF AGENT

Application Number	10/064,232
Filing Date	June 24, 2002
First Named Inventor	Jenny, et al.
Group Art Unit	1765
Examiner Name	Matthew Anderson
Attorney Docket Number	5000.236

I hereby appoint:

☒ Practitioners at Customer Number

021176

Place Customer  
Number Bar Code  
Label here

OR

☐ Practitioner(s) named below:

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

☒ The above-mentioned Customer Number.

OR

☐ Firm or  
Individual Name

Address

Address

City

State

ZIP

Country

Telephone

Fax

I am the:

☒ Applicant.

☐ Assignee of record of the entire interest. See 37 CFR 3.71.

*Certificate under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).*

### SIGNATURE of Applicant or Assignee of Record

Name Valeri F. Tsvetkov

Signature

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☒ \*Total of 5 forms are submitted.

Burden Hour Statement: This form is estimated to take 3 minutes to complete. Time will vary depending upon the needs of the individual case. Any Comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



**STATEMENT UNDER 37 CFR 3.73(b)**

Applicant/Patent Owner: Valeri F. Tsvetkov

Application No./Patent No.: 10/064,232 Filed/Issue Date: June 24, 2002

Entitled: Method For Producing Semi-insulating Resistivity in SiliconCarbide Crystals

Cree, Inc., a North Carolina Corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title and interest.  
The extent (by percentage) of its ownership interest is \_\_\_\_\_ %  
in the patent application/patent identified above by virtue of either:

A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 013171, Frame 0573, or for which a copy thereof is attached.

OR

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☐ Copies of assignments or other documents in the chain of title are attached.  
(NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08)

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

March 25, 2004  
Date

(919)313-5343  
Telephone number

Adam H. Broome  
Typed or printed name

Adam H. Broome  
Signature

Vice President, Legal  
Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



Attorney Docket No. 5000.236  
Confirmation No. 6381

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re: Jenny et al.  
Serial No. 10/064,232  
Filed: June 24, 2002  
For: METHOD FOR PRODUCING SEMI-  
INSULATING RESISTIVITY IN  
SILICON CARBIDE CRYSTALS

Group Art Unit: 1765  
Examiner: Matthew Anderson

Commissioner for Patents  
Alexandria, VA 22313-1450

Request for Correction of Inventorship: Consent of Assignee

Sir:

This is part of a request under 35 U.S.C. § 116 and 37 C.F.R. § 1.48 (a)(1) to correct inventorship in a nonprovisional application after the oath or declaration has been filed.

The assignee, Cree, Inc., hereby consents to the correction of inventorship to add Valeri F. Tsvetkov as a named inventor.

Cree, Inc. is the owner of the entire interest of the patent by assignment and Cree's Statement under 37 C.F.R. § 3.73(b) is being filed concurrently herewith on Form PTO/SB/96.

The undersigned is authorized to act on behalf of assignee Cree, Inc.

Printed Name: Adam H. Broome  
Signature: [Handwritten Signature]  
Title: Vice President, Legal  
Date: 3/25/04